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FIELD OF THE INVENTION

This invention to a gas/liquid contacting apparatus.

BACKGROUND OF THE INVENTION

There are various types of gas/liquid contacting apparatus wherein liquid passing downwardly through casing is contacted therein by gas passing upwardly through perforated trays which partition the casing at different levels.

In one type of gas/liquid contacting apparatus the liquid flows across the trays and is frothed thereon by gas permeating the tray perforations, see, for example, United States Patent Nos. 2,005,316, dated June 18, 1935, F.N. Hall, 3,022,054, dated February 20, 1962, M.H. Kotzebue, and 5,895,608, dated April 20, 1999, A.T. Lee, K. Wu and L. Burton.

In another type of gas/liquid contacting apparatus ordered or randomly distributed packing elements of packed beds are supported by the trays. These beds increase the surface contact area between gas and liquid in the apparatus. The packed beds may be catalyst packed beds, see, for example, United States Patent No. 4,514,377, dated April 30, 1985.

There is a problem with a gas/liquid contacting apparatus in that liquid droplets and/or solids entrained in gas fed to the apparatus, particularly when the gas is at a high velocity, can prevent effective passage of gas upwardly through, for example, tray perforations and packings, and have other detrimental effects on the gas/liquid contact, see, for example, column 1, line 66, to column 2, line 12, of United States Patent No. 5,895,608,